

Work Order ID 73212

Friday, August 26, 2011 7:57:28 AM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 8/26/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 8/30/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: CL

Date: 11/08/26

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N)

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set-Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

100



DC

Document Control

DOCUMENT CONTROL

Memo

0.00

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00



Skidtubes

0.00

Skidtubes

Skidtubes

Memo

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

DE 11/09/15

3- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch:

M112860

BE 11/09/15

4- grind fwd cap weld on top surface only

BE 11/09/15

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

DE 11/09/15

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

MO/ 11-09-14
DP

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[illegible]

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[illegible]**Setup Start**

Stop

[illegible]**Cust Item ID:**

Customer:

Run Start

Stop

SPC (Y/N):

Operation Description

Set Up/ Run Hours

Tool ID

Tool #

Plan Code

Accept Qty

Reject
Qty

Reject Number

**Insp.
Stamp**

114

QC5- Inspect part completeness to step on W/O

0.00

8/10/16

QC

Memo

0.00

Quality Control

116

QC10- Inspect visual per QSI004- ground welds

0.00

8 u 10/16

QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

SA

HandFinish

Meimo

0.00

Hand Finishing

11-09-20

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130 QC3- Inspect Part Finish

0.00



QC Memo

0.00

Quality Control

1 0 BE 11/09/20

150 Skidtubes

0.00



Skidtubes Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ Sikaflex-291 ☐ 118393 ☐

Sikaflex expire date: ☐ 12/04/05 ☐

Start: ☐ 11/09/20 ☐ Time: ☐ 4:00 PM

Finish: ☐ ☐ Time: ☐

(Adhere for 12 hours)

11/09/20

OK 11/09/20

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

11-9-22

170

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2 OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

11-9-22

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
190 Skidtubes	Skidtubes Memo 1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod A/R <input type="checkbox"/> Aluminum Rod <input type="checkbox"/> 3-Grind cross bolt welds flush as per Dwg D3274. 4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.	0.00 0.00							



11-9-26

W/O: 73212		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D706-642-541 PAR #: NA Fault Category: Landing Gear / welding NCR: Yes No DQA: 11 Date: 11.10.14
 11-886 Resolution: Scrap Disposition: Scrap QA: N/C Closed Date: 11/10/14

NCR:		WORK ORDER NON-CONFORMANCE (NCR) 191038						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/02/14	#190	During welding (well before welding on set up) welder installed ground in wrong location (on table not on table) and ground out the table.	CP 11/10/14 PS/042	→ Build out marks / Pin holes + Record wall thickness with the ultra and measure wall thickness = 0.049"	S 11/10/14		CP 11.10.14 PS/042	S
		in three locations 1st @ 26.675" (Lade) from Aft 2nd @ 52.250" (small) from Aft 3rd @ 110.00" (small) from Aft R.C. LOA when set up in for weld.	CP 11/10/14 PS/042	SCRAP TUBE PER D.S. EMAIL	SAD 11-10-14	11-10-14	CP 11.10.14 PS/042	S

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Cust Item ID:

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____	0.00 0.00							
240 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							
250 HandFinish Hand Finishing	HandFinishing Memo 1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets. A/R <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/> LPS-3 <input type="checkbox"/> _____ 2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/R <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> _____ <input type="checkbox"/> <input type="checkbox"/> Sikaflex expire date: <input type="checkbox"/> _____	0.00 0.00							

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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260

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

270

HAND FINISHING RESOURCE #1

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ ☐ Sikaflex-291 ☐ ☐Sikaflex expire date: ☐ _____

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: _____

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ ☐ Sikaflex-291 ☐ ☐Sikaflex expire date: ☐ _____

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Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				_____	_____	_____	_____
290 Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.00				_____	_____	_____	_____
300 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00				_____	_____	_____	_____

W/O:		WORK ORDER CHANGES					
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Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011**Required Date: 8/30/2011****Start Qty: 1.00**

Required Qty: 1.00

Comments:

IPP Rev:B05.09.230Revised per D206-642 Rev. J0KJ/JLM

IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM

IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD

IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

IPP Rev:F 08-06-02 add comment DD verified by:EC

IPP Rev:G 08-10-09 revise details DD verified by:EC

[illegible]

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Picklist Print

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Start Date: 8/26/2011

Required Date: 8/30/2011

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190 Each

46.0000 12 12



Cross Bolt Spacer



11-09-26

LocationLoc QtyLoc Code

LG	34	
68224	2	
71355	2	
72704	30	
LG001	12	
65317	1	
68507	11	

12

D3275-1

Manufactured No

190 Each

280.0000 12 12



Crossbolt Spacer



11-09-26

LocationLoc QtyLoc Code

LG	161	
72123	161	
LG002	119	
66930	106	
68946	13	

12

CR3212-4-03

Purchased No

250 Each

1,158.000 2 2



Cherry Rivet

LocationLoc QtyLoc Code

FP-B	2	
110139	2	
ST311	1156	
114859	1156	

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Start Date: 8/26/2011

Required Date: 8/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3415-041	Manufactured	No	250	Each	50.0000	1	1

Nut Plate

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST053	50	
33842	6	
67605	44	

CCR264SS3-3	Purchased	No	250	Each	459.0000	2	2

Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-B	2	
113973	2	
ST311	457	
117086	31	
117849	426	

ALS4-1032-130	Purchased	No	250	Each	1,416.000	78	78

Insert

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST281	370	
118386	370	
ST282	1046	
117717	54	
118237	736	
118312	256	

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Start Date: 8/26/2011



Required Date: 8/30/2011

Start Qty: 1.00



Required Qty: 1.00

D3536-15	Manufactured	No	270	Each	22.0000	1	1
							
Gasket							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP011	22	
71586	13	
72881	9	

D3536-23	Manufactured	No	270	Each	18.0000	1	1
							
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP011	18	
43406	1	
69902	5	
71579	12	

D3536-35	Manufactured	No	270	Each	23.0000	1	1
							
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP012	23	
71587	13	
72882	10	

D3536-39	Manufactured	No	270	Each	20.0000	1	1
							
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP015	20	
69760	20	

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, August 26, 2011 7:57:25 AM

Page 5

Work Order ID: 73212

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011



Required Date: 8/30/2011

Start Qty: 1.00



Required Qty: 1.00

D3535-15	Manufactured	No	270	Each	9.0000	1	1
							
Wearshoe							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	9	
69931	9	

D3535-35	Manufactured	No	270	Each	12.0000	1	1
							
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	12	
65926	1	
67598	1	
70815	10	

D3535-39	Manufactured	No	270	Each	19.0000	1	1
							
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	19	
69759	6	
72159	13	

D3535-23	Manufactured	No	270	Each	18.0000	1	1
							
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP021	18	
70818	8	
71581	10	

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 73212



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011

Required Date: 8/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3537-3 Manufactured No

270 Each

11.0000

1

1



Wearpad

Location

Loc Qty

Loc Code

FP

5

70481

5

FP017

6

35697

1

72686

5

D3537-1 Manufactured No

270 Each

66.0000

9

9



Wearpad

Location

Loc Qty

Loc Code

FP001

9

69530

9

FP016

50

68944

0

70687

50

FP017

7

69817

5

70686

2

AN960C10L NAS1149C0332 Purchased No

270 Each

0.0000

80

80



washer

AN960C416 NAS1149C0463 Purchased No

270 Each

0.0000

1

1



washer

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7

Work Order ID: 73212



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011

Required Date: 8/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3672-1 Manufactured No

270 Each

1,180.000 2 2



Phenolic Washer



Location

Loc Qty

Loc Code

ST074

1178

64177

182

66821

496

72229

500

ST077

2

52505

2

AN3C4A Purchased No

270 Each

2,109.000 80 80



BOLT



Location

Loc Qty

Loc Code

ST350

2109

117313

2

117688

36

117795

1

117872

22

118012

20

118112

40

118451

1000

118628

988

AN4C5A Purchased No

270 Each

487.0000 1 1



BOLT



Location

Loc Qty

Loc Code

FP-B

98

112243

98

ST345

389

112243

389

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 8

Work Order ID: 73212



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/26/2011

Required Date: 8/30/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270 Each

93.0000

1

1



Aft Cap



Location

Loc Qty

Loc Code

FP004

46

68280

46

FP006

5

62678

5

FP-4

38

70945

1

71070

37

fp5

4

71038

4

D3413-1

Manufactured No

270 Each

23.0000

1

1



Ring



Location

Loc Qty

Loc Code

ST420

23

66387

1

70773

22

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY SCALE NTS	
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 73213
CZL/08/12/4

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

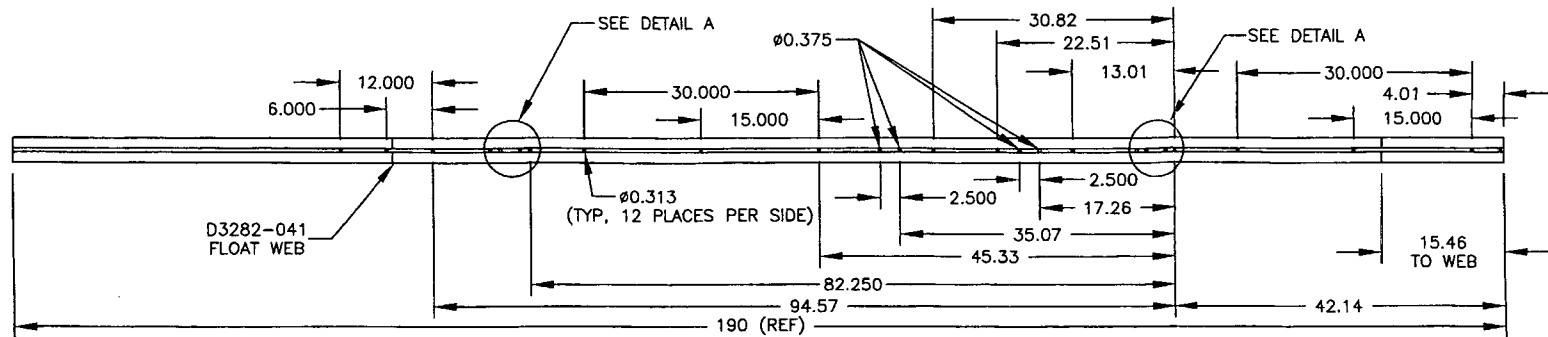
GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

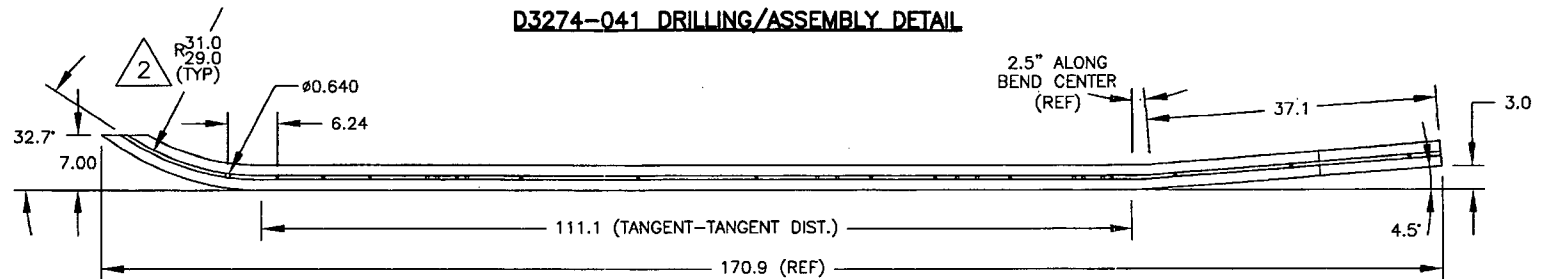
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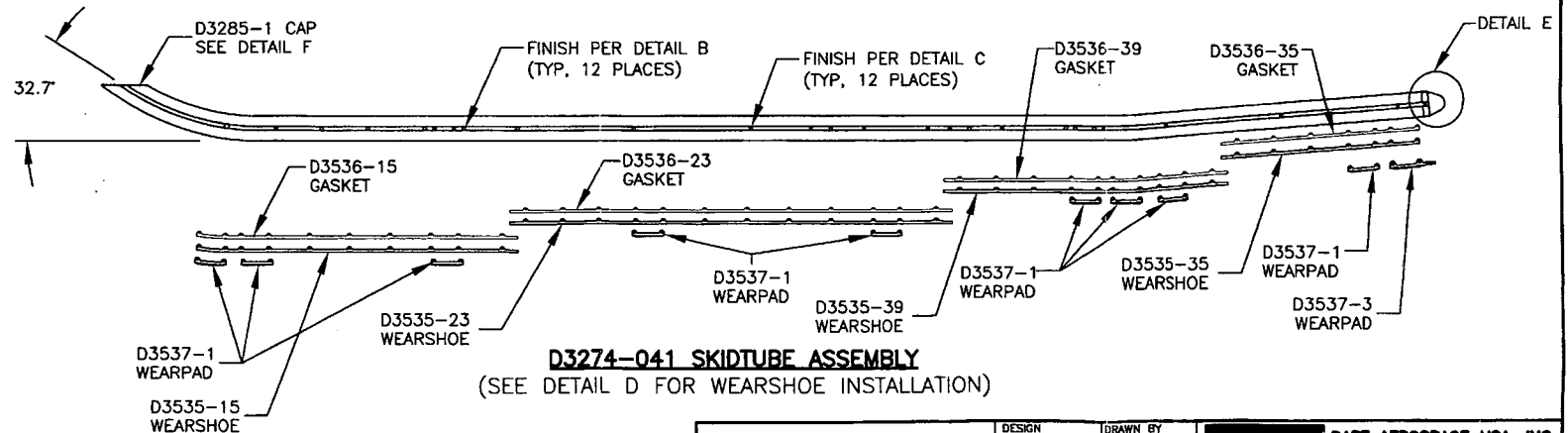
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D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



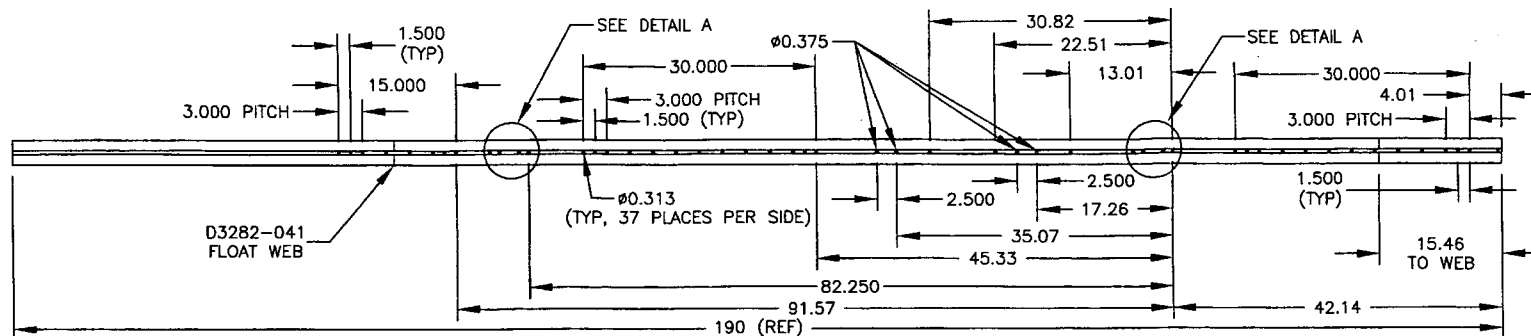
D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

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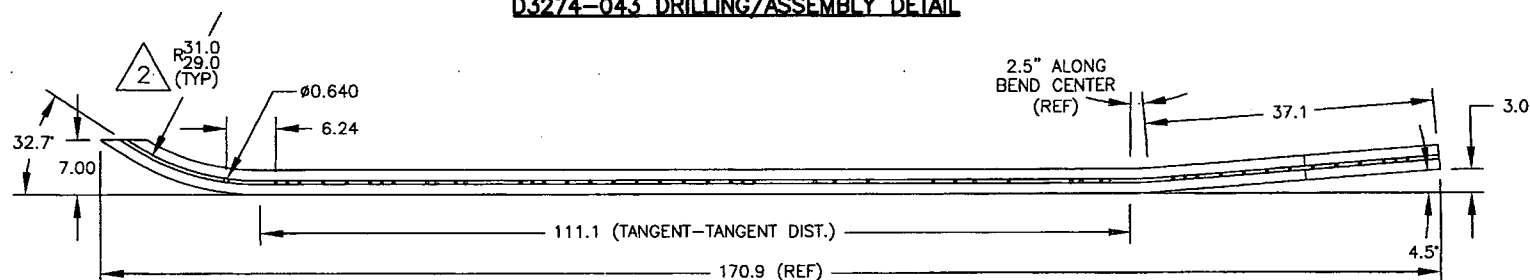
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CHECKED	APPROVED	DATE	DRAWING NO.	REV. D
#	#	06.12.19	D3274	SHEET 2 OF 4
TITLE			SCALE	
SKIDTUBE ASSEMBLY			1:15	

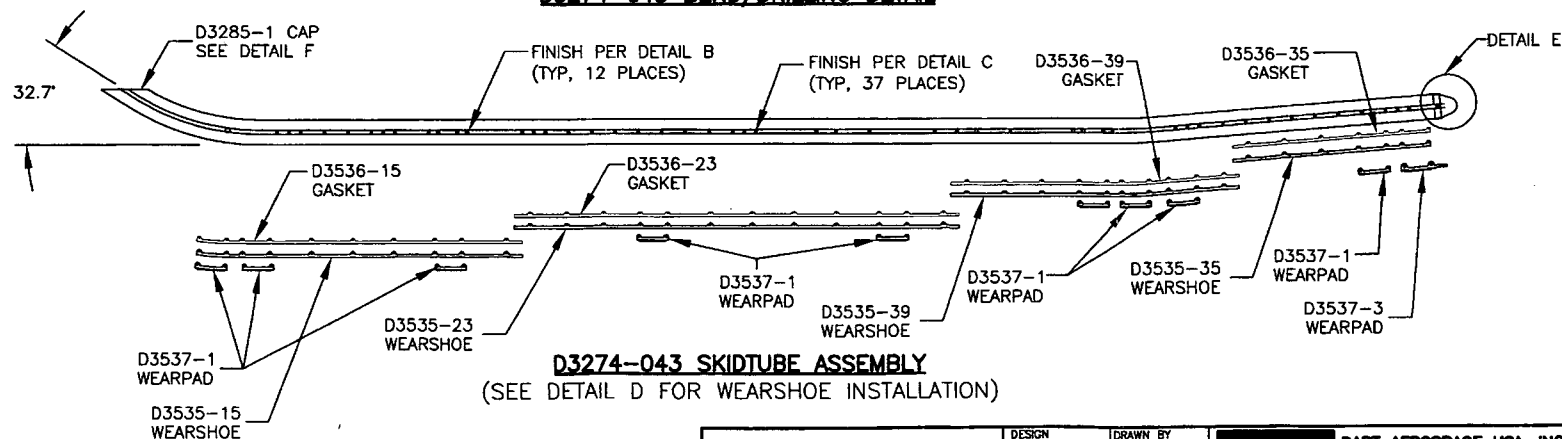
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



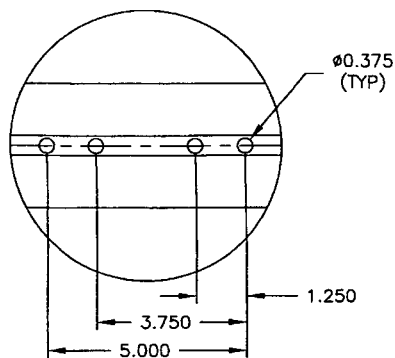
D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

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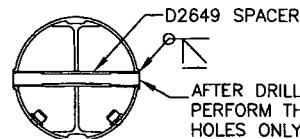
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DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	SHEET 3 OF 4	SCALE
				1:15	

DETAIL A: DRILL DETAIL

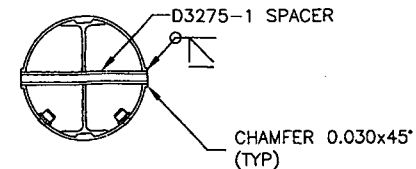


DETAIL B FOR 0.375 HOLES ONLY

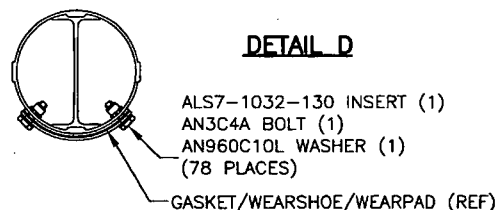


AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO 0.313x0.75 DEEP

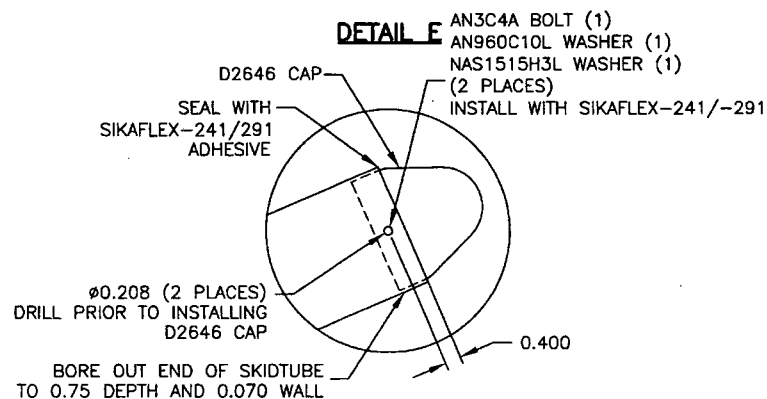
DETAIL C FOR 0.313 HOLES ONLY



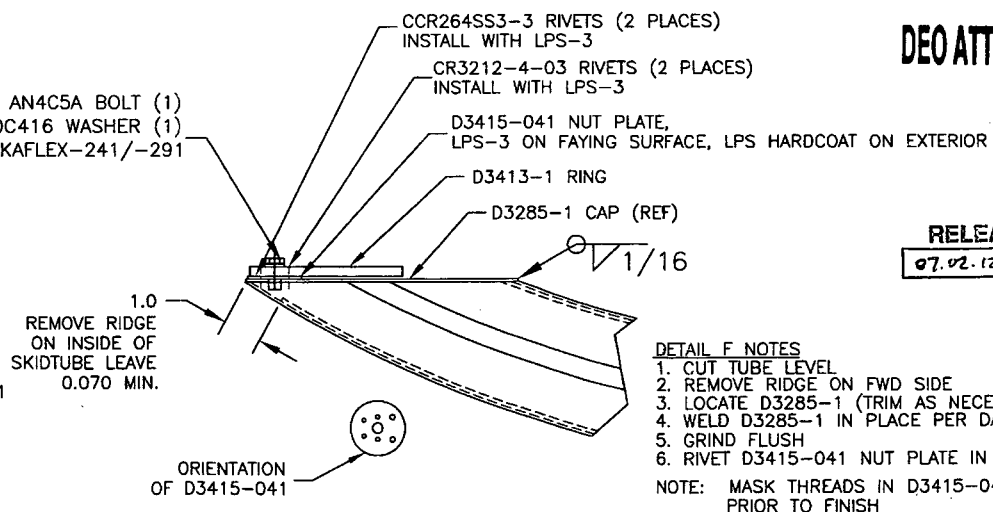
DETAIL D



DETAIL E



DETAIL F: END FINISHING DETAIL



DEO ATTACHED

RELEASED
07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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		DATE		D3274	SHEET 4 OF 4
		06.12.19		SKIDTUBE ASSEMBLY	SCALE 1:3

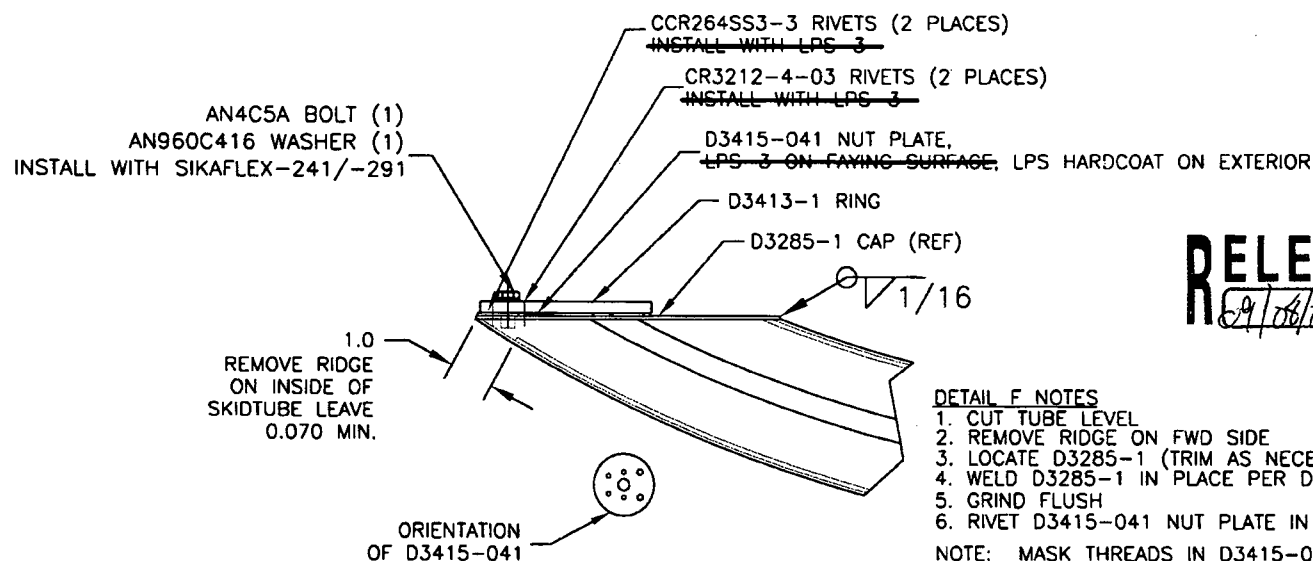
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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Chris Provencal

From: David Shepherd <dshepherd@dartaero.com>
Sent: Monday, October 03, 2011 4:04 PM
To: 'Mike Petsche'; 'Chris Provencal'
Cc: 'Eric Downing'; 'Bill Beckett'
Subject: RE: NCR D206-642-541

Chris,

I also agree ... This tube should be scrapped.

Bill,

Just FYI ... It is a shame to scrap a tube with so much value in it for what appears to be a careless error.

David

From: Mike Petsche [mailto:mpetsche@dartaero.com]
Sent: October-03-11 10:12 AM
To: 'Chris Provencal'; 'David Shepherd'
Cc: 'Eric Downing'
Subject: RE: NCR D206-642-541

Totally agree.

From: Chris Provencal [mailto:cprovencal@dartaero.com]
Sent: October 3, 2011 10:54 AM
To: David Shepherd
Cc: Mike Petsche; 'Eric Downing'
Subject: NCR D206-642-541

David,

RE: D206-642-541 Float Skidtube

When welding the tube, they didn't put the ground in the right location (they put it on the table instead of the tube). There was arcing which made pit marks in three locations. They're all located on the top of the tube, along the length. We've ground the worst location. The wall thickness is down to 0.049" (0.07" nominal) and there are still marks.

The tube has the I-beam installed and is bent, drilled, and welded. I believe this tube should be scrapped.

-Chris